

ROCKS and MINERALS

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MONTHLY



Edited and Published by
PETER ZODAC

April
1943

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ROCKS and MINERALS

PEEKSKILL, N. Y., U. S. A.

The official Journal of the Rocks and Minerals Association

Chips from the Quarry

One Answer Is Received

Editor R & M:

Your "Chips from the Quarry" in the February, 1943, issue was a chip with lots of good minerals in it. You may wonder how I know of this editorial since I am not a subscriber to ROCKS AND MINERALS. The answer may floor you. *A friend gives me his copy to read every month.* Why I should use that situation as a reason for not being a subscriber is difficult to understand because I have searched not only the branches but every twig of our family tree without finding any Scotch ancestry.

And also because: first, your magazine has been a most valuable aid to me as a collector. It has furnished me pleasant reading, excellent data, and many addresses of other collectors with whom I have exchanged specimens.

Second, you have frequently been called upon by letter to aid my mineral search and have never failed me.

Third, I am firmly convinced that it is a duty of every mineral collector to keep alive such a common bond as your magazine.

Therefore, why in heck don't I subscribe! ! !

Donal Hurley,
Little Falls, N. Y.

Feb. 26, 1943.

P.S. Two bucks are enclosed!

In the last issue of ROCKS AND MINERALS we commented on the unusual interest that our editorial in the February Number had created—that many cordial letters had been received containing not only good suggestions but many subscriptions (one lady sending in five). These letters and subscriptions are still coming in. One letter is of so much interest

and value that it is reprinted in full. It appears above.

Mr. Hurley's letter is in answer to the last paragraph of our editorial in the February issue which reads:



"Why does not every active mineral collector support a mineral magazine? We wish we knew the answer. If such a collector happens to read this, we would be most grateful were he to write us his reasons."

We hope other collectors, who do not take ROCKS AND MINERALS, will send in their reasons for not subscribing. We might find their letters of much value also.

Peter Zodac

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((The Official Journal
of the
ROCKS and MINERALS
ASSOCIATION))

Whole No. 141

A FLUORSPAR ADVENTURE IN NEWFOUNDLAND

By A. J. WALLACE

A report before me read:

"In general it may be said that it is cold, rainy, foggy, and depressing.

"Thence by Steamer to St. Lawrence. Some times as much as 2 weeks between Steamers on account of fog."

Locate a good map of Newfoundland, run your finger down the east side of the Burin Peninsula (projecting southerly from the southerly portion of the Island bearing the name mentioned) and you will find St. Lawrence, one of Newfoundland's numerous "Outports", as they are called. St. Lawrence is on the S. W. shore of Placentia Bay (46°55' N. Lat., 55°55' W. Long.).

Many years ago the natives of St. Lawrence had noticed the presence of "pretty stones" at Black Duck (take another look at the map and you will be impressed with the picturesque names appearing thereon) close to the Settlement.

As fishermen, the stones were meaningless to the natives, but it so happened that a not large area embracing St. Lawrence had been treated, at some remote age, to a granitic intrusion, fluorspar developed in the fissures, created by the granite cooling, and we have the explanation for the "pretty stones".

The time is late April, 1937, and I have my first glimpse of Newfoundland's rocky shore line from the small French Island of St. Pierre, some 10 miles distant. (On a subsequent stop at St. Pierre it was said that the fog had not lifted for 40 days, but on this particular occasion it was clear and the low hills at the base of the Burin Peninsula were gazed upon with much interest).

Enroute to St. John's, the Capital of Newfoundland and where entrance to the Island was gained, I had a distant glimpse of Cape Chapeau Rouge, a rocky promontory guarding one side of the entrance to the harbor serving St. Lawrence and of which much was seen during my original stay and return visits.

Accompanied by an American mining engineer, my errand dealt with examining one or more fluorite veins that had been brought to light and, if decided upon affirmatively, exploring and developing them.

As of today St. Lawrence can be termed a mining community, but while we were preceded by another American group who had commenced their labors in an earlier year, the Settlement in the fore part of 1937 still depended, to a considerable extent, upon the sea for a livelihood.

With all transportation by water and no mining supplies to be had on short notice, at least at St. Lawrence, two busy weeks of preparation followed our arrival at St. John's. Finally we departed via the Newfoundland Railway, a narrow gauge Governmental Line, for Argentia, a point on the east shore of Placentia Bay, whence we embarked in a small coastal steamer, also Government owned, for St. Lawrence.

The first leg of the journey represented approximately 80 miles and was covered in a little over 7 hours. Rapid transportation! Later the trip, especially in reverse, was made in from 3 to 5 hours and the original journey still stands as a record, at least to a pair of Americans.

We are aboard the S/S "HOME" which left Argentina around 1 A.M. Not much room for clothing, it was a case of one at a time undressing and redressing in a room accommodating four males with another such room for the ladies, but the boat was clean, and the Captain genial.

Numerous calls at points located on the large bay took place one by one and by the following nightfall we reached Burin, an outport on the opposite side of the bay and some 12 miles north of St. Lawrence as the crow flies.

The morning had dawned bright and clear, but as the day progressed, traces of fog appeared, the traces accumulated and on reaching Burin we tied up for the night.

(During various trips to St. Lawrence, extending from 2 weeks to 3½ months, ample opportunity to become acquainted with fogs was afforded, but while the "HOME" and the "GLENCOE", another Government Coastal Steamer, were frequently held up by this state of affairs, the statement on such subject appearing elsewhere is a little strong).

While at it I will also bestow some remarks on the weather. St. Lawrence was reached May 12th and departed from at the close of August. An unusual experience perhaps, but barring what happened until around the first of July, we experienced many pleasant days with plenty of sunshine and not much fog.

Later I returned during a winter month and while there was a little ice in the harbor, which, incidentally, is open the year around, the days were bracing, no evidence of fog and good weather.

To be exact about it, St. Lawrence gets its share of cold, rainy and foggy days, but partially counterbalanced, at least, by respectable days and while a prolonged residence at such point would probably not appeal to the average American, there are worse places in which to dwell.

A large part of the Island consists of Crown Lands, i. e. held by the Crown. The Crown welcomes, or at least welcomed, legitimate developing, looking to permanent operations, and a way and

mean of acquiring mining claims was afforded by observing the rules and regulations contained in the Crown Lands Act as published in a pamphlet with which I was to become well acquainted.

Prior to our arrival a number of claims had been staked by some Newfoundland parties, responsible even though indirectly for our presence, and during the first 60 days of our stay, an additional number, with the aid of a young but exceedingly capable Newfoundland surveyor, were treated to the procedure involved.

Resuming my story of trip number one, we departed from Burin early in the morning and in due course went ashore at St. Lawrence and proceeded to a boarding-house, boasting at the time of the sole bathroom in the Settlement. The menu left things to be desired, but a bathtub, etc., went a long way and in any event no ill effects were suffered.

Escorted by a guide, we set out the next day on foot for Tare Fare, a trip of some 3 miles, to survey the results of various test pits that had been dug. We then put some men to work to trace the veins and when the equipment which had been ordered from the States arrived, we set in earnest to work the deposits.

Reference was made to former dependence upon the sea for a livelihood by which is meant the capture and, after a succession of steps, the shipment of dried codfish. Ten years or so prior to our arrival a disturbance in the bed of the ocean, at a point some distance south of the Peninsula, had occurred. As described to me, the water in the St. Lawrence harbor, following the disturbance, withdrew, succeeded by a tidal wave. By taking to the hills which rise from the harbor, no lives were lost at St. Lawrence, but LaMaline, 18 to 20 miles to the west, was not as fortunate and some loss of life took place.

June, as recalled, marks the appearance, at least the looked for appearance, of shoals of caplin, a variety of small fish appealing to the palates of the cod . . . consequently caplin, cod and dried cod. Due to the disturbance alluded to, the usual heavy runs of caplin diminished

and remained diminished. This spelled trouble for the base of the Burin Peninsula and prosperity, as measured by local standards, was succeeded by destitution.

With large families the order of the day and exceedingly small dole payments, things did not go too well and we were swamped by applications for employment from morning to and after night-fall. Fortunately this state of affairs has been changed, but I cannot forget one elderly woman, appealing on behalf of a son, who said that she, her husband and son, had lived on tea and molasses, plus bread of course, for four years and death in the harbor seemed to be the solution to their difficulties.

With exceptions the labor, as seen through American eyes, left things to be desired. Fishermen are not converted into miners over night, but the rate of pay was modest and we got there even if slowly.

One piece of equipment brought with us from St. John's was a Government diamond drill, which we hoped would enable us to do things in weeks as compared with months without it. As luck would have it, the granite holding the veins was greatly shattered, the stones that came with the drill would not take the punishment inflicted upon them, and we were forced to bid good bye to this particular piece of equipment.

A bridge across Salt Cove Creek had to be constructed, a road (in the beginning it was more like a trail) from such bridge to the point selected for the scene of operations had to be built, and all in all there was much to do, including the building of a tippie and various building at the mine site.

A problem that confronted us in short order was transportation to the mine site. St. Lawrence boasted of a Parish Priest, a man of unusual character, who endeavored to help out by putting his Ford coupe, of uncertain age, at our disposal. The coupe plus two trucks belonging to the other group in the district constituted the only motor driven equipment in and around St. Lawrence and something had to be done about it.

An altered Chevrolet with a small truck body, said to be for sale at Burin was described by a St. Lawrence merchant in glowing terms. "Where ignorance is bliss its folly to be wise". Accordingly and in any event I am taken in a skiff to Burin and become the possessor of "Tiny", as christened upon its arrival at St. Lawrence. In passing, "Tiny" was born in 1928 and in another country would probably have been retired considerably prior to the purchase on my part, but motor cars on the Burin Peninsula were scarce articles and not to be parted with readily.

As has been remarked, the crow air line between the two points is approximately 12 miles. Landing the truck in St. Lawrence was accomplished by covering over 100 miles. Escorted by a driver, the Peninsula was crossed by proceeding northwesterly to Garnish, a small community on the west coast. Turning south and following the shore line landed us at Grand Bank, a fishing haven of some importance, in time for lunch. We continued on and while the road traversed in the morning was nothing to write home about, that encountered in the afternoon, (the journey commenced at 8 A.M. and terminated at 6 P.M.) assumed the nature of a trail best described as rough and rugged.

Barring the communities on or close to the chief railroad line, running from St. John's on the east to Port aux Basques, in the southwestern corner of the Island, a stretch by the way of 547 miles, and the four branches of such line, life in Newfoundland is confined, in the main, to its extensive coast line embracing nine large bays and an unlimited number of small bays and coves.

With the exception therefore of Garnish, Grand Bank and Fortune, a little south of Grand Bank, and LaMaline, still farther along, little was seen of habitations or beings of any kind during the trip.

Newfoundlanders, it was found, have two outstanding characteristics, friendliness and curiosity. The former proved agreeable and the latter amusing. All

and sundry enountered enroute wished us well, but above all, who is the stranger? what is his business? and, quite legitimately, can it mean anything to me?

LaMaline had been hit hard by the bed of the ocean disturbance and much evidence of destitution was to be seen. Next and judging from the interest manifested, LaMaline's knowledge of motor cars, offering a striking contrast to small crude wagons or carts pulled by dogs, was limited to say the least and the reactions displayed were highly interesting.

At times we traveled close to the water's edge. In the afternoon the trail, for part of the distance, was on the lee side of the low hills seen from St. Pierre. As far as the eye could take in the low lands, better described as bogs, extended to the north and with the ocean hidden from sight, I felt shut off from the world. At long last, however, Cape Chapeau Rouge appeared in the distance and while the question arose whether or not the crude bridge across a small creek would stand the weight of the machine, we got over it safely and finally pulled up to the boarding-house where the machine was quickly surrounded by admiring youngsters.

"Tiny", it was soon found, suffered from the complications accompanying old age and failed to function with or without notice. On one occasion I sat at the wheel for fully 2 miles while "Tiny" was pushed up hill and then did the coasting act. And needless to say those responsible for the pushing were relieved when we coasted down the final hill.

A month later "Tiny" was joined by "Queen Mary", a used Ford truck with an extended body. "Queen Mary", I was assured by a reliable firm in St. John's engaged in handling cars, had been overhauled, plus a new body, from stem to stern.

Accompanying the truck was a small tractor, which, barring a bad radiator leak, could get about. The tractor, the only one of its kind to be had, was borrowed temporarily. These and some mis-

cellaneous supplies reached St. Lawrence via the "Portia", a third Governmental boat. This boat plied between St. John's and Halifax, Nova Scotia, with stops at points in Placentia and Fortune Bays, the latter consisting of a second large bay, washing the west coast of the Burin Peninsula. In keeping with "Tiny", the "Portia" was far from young and was to be succeeded in the Spring of 1940 by a new vessel being built in the old country. My connection with Newfoundland fluorspar ceasing at the close of 1939, I have never heard the outcome, but fear that as a result of the war, the "Portia" is still making its rounds.

The tractor was to pull an air compressor from the Government wharf at St. Lawrence to its first resting-place at Tare Fare. With all the children in the Settlement on hand, and they were not all children, we reached the base of the first hill but could go no further. The tractor "dug in" but the job was too much for it.

Our audience decided that we had bitten off more than we could chew, but knowing that Americans were funny creatures, they thought it best to withhold judgment until it was seen what we would do.

"Queen Mary" was placed in front of the tractor, treated to its low low gear and, to the accompaniment of considerable noise on the part of the audience, walked off with both the tractor and the compressor.

With descents as well as ascents to be made, men were stationed around the compressor to lend a hand if it showed any sign of getting out of control. Suddenly there was an urgent shout to stop—the front left wheel was almost off and a few more feet would have settled it, followed by a long hold-up for replacement parts. The machine was just off the shelf, in plain English—brand new—and what happened to the heavy cotter pin that should have been in place remained an unsolved mystery. Hauling it over the final stages of the trip called for the use of block and tackle, but with a feeling of great relief it was placed

where it did a good job until moved to another site, at which point it is still functioning, I believe.

Reference has been made to children. Both "Tiny" and "Queen Mary" were magnets to them, boys in particular, and one could rest assured that one or more would climb aboard without giving notice, even though the machine was in motion, and depart with reluctance when called upon to follow this course of action.

One bright Sunday afternoon we undertook, not realizing what would happen, to take the family of one of our men to the Camp, making use of "Queen Mary". This or that one appeared with pleading expressions and although every inch of space, at least as far as could be seen, was occupied before we got underway, several others were squeezed in enroute. With some bad twists and turns to the first hill, those in authority did not enjoy it, but Newfoundlanders appear to be blissfully unconscious of danger and our guests had the time of their lives.

After the first week of operation the big truck fell from grace and the local mechanic, who had been added to our ranks, assured us that there was something seriously wrong with the transmission. After hearing harsh noises for several days during which length of time the mechanic laid under the machine doing this and that, a show-down was called for and the transmission was taken out. Everything seemed to be O. K. and the various parts restored to their resting-place. The machine would move, but the sounds produced continued to grate on the ear and it was eventually decided that the jack shaft, between the clutch and the transmission, was at fault and that a small spring, if such could be found, would remedy the difficulty.

After searching high and low, including a lengthy phone call to Grand Bank and sending a man several miles to the local fog horn station, we gave up and wired St. John's. The guilty part, left out when the machine was overhauled, arrived in a week's time, but I cannot

forget the feeling of helplessness, as against prompt attention on the part of an American service station, in this portion of the globe.

By degrees a tippie, an overhead framework over the shaft to be dug, goes up, sinking (putting down the shaft) gets underway and we settle down to see what would be revealed when the east and west veins are intercepted.

The main vein, that to the east, dipped in one direction and following standard practice, the shaft was sunk in the granite, to one side of the vein, designed to "cut" the vein at a certain depth. The intercepting came about in due course followed by "drifting" along the vein; in other words following the vein horizontally.

A cross cut to the west vein went on simultaneously and working around the clock with three shifts, Tare Fare, while lost to the world proper, was a busy place.

A laboratory was fitted up, not over night if you please; the young surveyor was sent to St. John's to learn how to analyze fluorspar; a hundred and one details called for attention and the days passed rapidly.

Coincident with the activities that have been described, or at least alluded to, prospectors, local men, were scouring the old and new claims for additional veins. Two men in particular, representing an unwritten partnership, deserve mention. One was young and the other considerably older. The former probably had the benefit of some schooling, but so far as technical training is concerned they were babes in the woods. Just the same they could read the signs denoting whether or not the mineral was around and, in brief, were fluorspar hounds.

In short order they produced a find at a point about $\frac{3}{4}$ of a mile northeast of Tare Fare. It was suspected that they had had it up their sleeves for some time, but be this as it may, the equipment at Tare Fare, buildings included, was taken across the bogs in the winter of 1938-39, when the ground was frozen, and at present shipments from a vein of considerable

size are moving to an important defense material producer.

The veins vary in width from 6 inches to 14 feet of solid fluorite. One of the most extensive veins worked to date has been mined to a depth of 180 feet, to a length of 450 feet, and has an average width of 4 feet—its chief impurities are chalcopryrite and sphalerite which occur in small amounts.

But to return to our prospectors. A week seldom passed without their showing up at our little Town Office, a former one-room store, and displaying some specimens that they had found here, there, or elsewhere.

On one particular occasion the pieces exhibited had all the ear marks of unusually high grade material. Considerable labor was invested on their find, but it proved to be a matter of stringers (small, narrow veins) and the work had to be abandoned.

Other finds had defects of one or another nature and when last heard of the two men were working, in some capacity, at the mine brought about by their principal discovery.

August arriving it became time to arrange for our return to the states. The young surveyor was measuring up, likewise Bill Simms, a fine physical specimen from the northern portion of the island. Bill functioned as mine foreman and so far as is known, still retains the job.

Subsequent shorter visits followed. All was not milk and honey, but always interesting, much knowledge was gained and a source of personal regret when it was decided finally that the property should pass to another interest.

I cannot close this article without some additional references to St. Pierre, 35 miles from St. Lawrence, and a celebrated spot during Prohibition Days. A num-

ber of crossings took place in a large tug bearing the name "Bearn", and at a cost of \$75.00 per trip. St. Lawrence as regards fog, might be clear, but once out in the bay everything would be shrouded in mist, and for four or five hours I would alternate between a small room and the wheel house. Always interesting, but a ticklish journey and tying up at either end was a relief.

On approaching St. Pierre the captain, a comparatively young Frenchman, would pick up a bell buoy with uncanny accuracy and between tooting the whistle, for our protection and for that of fishing boat afloat, would direct attention to the St. Pierre or the St. Lawrence fog horn, as the case might be, heard by him considerably before being heard by me.

A small hotel at St. Pierre operated by the widow of a Frenchman and the older of two son, was homey and delightful. Clean as whistle and the food excellent, I often wonder what has become of its proprietress and her two sons, the younger of the two operating a fox farm and having a hand in other enterprises.

I last departed from St. Pierre, bound for home, the latter part of August, 1939, and at first could not appreciate the vivid interest with which the radio was followed for events abroad. Life had become intense and fearful of what shortly thereafter came about. I formed an attachment for the rocky mass bearing the name St. Pierre, the same thing goes for Newfoundland, and the denizens of the two islands, one a pin prick and the other large, have my very best wishes.

Enjoys Magazine

I sure do enjoy the magazine and think it's great to be a member of the Rocks and Minerals Association.

Mrs. A. C. Morris, Greenfield, Mo.

Scientist Promoted

Bryan Patterson has been appointed curator of the division of paleontology at Field Museum of Natural History, Chicago, Ill., it was announced recently by Orr Goodson, acting director. He has been acting curator since the retirement

last year of Elmer S. Riggs, former curator, and previous to that had been assistant curator. Since 1926 he has been prominent in conducting museum expeditions, and has contributed extensively to scientific literature in his special field.

A TRUE STORY IS WORTH REPEATING

By JOHN A. GRENZIG

Brooklyn, N. Y.

In June, 1897, I had a very vivid dream that I was making a visit to the Smith traprock quarry in West Paterson, N. J., which was then a big hole in the west side of Garret Mountain.

I dreamt I arrived at the quarry after a blast and found that a large round mass of amygdaloid (about 4 feet in diameter) had rolled off to one side, far from where the men were working; that I went up to it and on examining it noticed a 2 inch seam of amethystine quartz that did not look any too promising. In the quarry was a blacksmith shop and the dream showed me walking to it and asking the blacksmith for a loan of a heavy sledge—the blacksmith pointed to a 20-pound cross-edged sledge that stood on its head resting against the door and said to take that. I took it out to the boulder, raised it over my head and let the full weight of it fall on the mass of rock. The first blow split the boulder in half and to my surprise two halves of a 3x5 inch amethyst geode lay before me.

All the circumstances were so clear and realistic that I considered the dream a premonition.

The next morning I told my wife about it and she advised me to go to the quarry.

I was on the 9:00 o'clock train that morning bound for West Paterson. As soon as I got into the quarry, I noticed, while I was still 200 feet away, a large boulder lying off to one side just where my dream indicated its location. When I got up to it, the picture of my dream was perfect—there was the 2 inch seam of poor looking amethystine quartz. I could do nothing with my small mineral hammer so went to the blacksmith, a Mr. Sullivan, a very kindly fellow, and asked him for the loan of a sledge. He pointed to one leaning against the door and said to take that one—it was the one of my dream in every way, it stood on its head

and was cross-edged I raised it as high as I could over the boulder and came down with full force. To my intense surprise the boulder was split in half at the first blow and there—were the TWO HALVES OF THE AMETHYST GEODE—just as pictured. I managed to free them both without injury.



The dream-amethyst in Mr. Grenzig's collection is a mighty nice specimen!

Dr. Hunt, of Brooklyn, was a famous mineral collector in those days and a dear friend of mine. I gave him one half of the geode and retained the other to this day. Dr. Hunt died some time ago and his collection was sold. I often wonder where that half of the amethyst geode may be and if the new owner knows its history. I would like to find this out, after 45 years.

Editor's Note: The Smith traprock quarry is on New Street and was later known as the Upper Quarry (a noted locality for minerals); the present New Street quarry is also known as the Lower Quarry.

MINING—NUMBER ONE WAR INDUSTRY*

The mineral products of the earth are the prime necessities of war . . . and peace

The surface of the earth provided primitive man with the things he needed for his meager existence but civilization really began when he became curious about its interior. This curiosity has brought us a long way. For the earth has yielded—out of its deep recesses—all the raw materials of modern industry. And today, in the grueling race of production, our mining industry is providing the raw materials upon which depends our survival. Our mines and quarries must supply a long list of materials without which a successful war cannot be fought.

Take steel, for example. War without steel is inconceivable. Steel starts with iron ore, limestone and coke. These are products of mines and quarries. It takes power and heat to get these materials out of the ground, to refine them and to transport them to the point where processing begins. All the subsequent operations culminating in the steel ingot, shape or plate, and in moving the final product to the point of use require power and heat.

The major source of this power and heat is coal.

Production of a ton of steel, it has been stated, requires two tons of coal. Smelting of the pig iron alone, 60,000,000 tons in 1942, required the coking of some 75,000,000 tons of coal. Pig output is expected to rise to 68,000,000-70,000,000 tons in 1943, carrying coal consumption up to 85,000,000 tons. At the same time, output of steel ingots is expected to rise from 87,000,000 to 97,000,000 tons. Think what this means in terms of power and heat.

Another vital metal is copper. Modern armies need copper. This point is dramatically illustrated in a recent memorandum by Robert P. Patterson, Under Secretary of War, in announcing the release of 4,000 men from military service to return to the mines and increase

copper production. "In a single minute of combat", Mr. Patterson declared, "a flight of 50 fighter planes shoots away 7 tons of copper. A 37-mm. anti-aircraft gun uses up a ton of copper every twenty minutes it is in operation. Six hundred pounds of copper go into every medium tank, and a ton into the engines and airframe of a Flying Fortress. The Signal Corps alone needs 5,000 tons of copper every month for radio and telegraphic and telephonic equipment. An army without copper would be an army without speed, maneuverability or firepower. It would not last a day in battle".

Seven tons of copper for one minute of combat by 50 fighter planes means from 200 to 700 tons of ore, depending upon its grade. Small wonder that the War Department was willing to release drafted miners from military duties to produce more copper.

But other metals are equally important in war: tungsten, nickel, manganese, chromium, vanadium and molybdenum for alloy steels; zinc for brass and die castings; tin for bronze and bearings; aluminum and magnesium for aircraft; lead and mercury for ammunition; silver for electrical equipment, bearings and solder, and so on. Even relatively insignificant non-metallics, like mica and diamonds, suddenly assume critical importance.

And let us not lose sight of the fact that without adequate energy, i.e., heat and power, production, processing, transportation and the relative comforts to which we have become accustomed would be impossible under war conditions. Coal is the major source of energy in the United States. It supplies more than half the total in normal years.

The railroads of the country alone used 110,000,000 tons in 1942 to move freight and passengers and service their facilities. Utilities consumed over 68,000,000 tons in the production of elec-

*Reprinted by permission from the Feb. 6, 1943 issue of *Electrical World*, a McGraw-Hill publication, New York City.

tric power. Over 135,000,000 tons of coal were consumed last year in maintaining the level of heating comfort necessary for the maintenance of efficiency and morale. The consumption, this year, will be even greater.

In short, the mineral products of the earth are the prime necessities of war.

The nations that control the world's mineral resources and make the most efficient use of them will win the victory.

Before the war, the British Empire and the United States together controlled probably 75 per cent of the world's mineral production. This would have been a most potent weapon in the United Nations' arsenal if the whole strategy of Axis expansion had not been influenced by mineral objectives. Addressing the American Zinc Institute on the subject last April, E. W. Pehrson, of the U. S. Bureau of Mines, estimated that the Axis had improved its position in world mineral resources in the following percentages: iron ore, from 6 to 46; steel production capacity, 20 to 34; petroleum, 1 to 7; coal, 27 to 53; copper, 5 to 10; lead, 7 to 22; zinc, 16 to 27; tin, 1 to 72; manganese, 2 to 30; chrome, 3 to 30; tungsten, 6 to 60. In the light metals, areas now Axis-controlled produced in 1940 54 per cent of the world's aluminum, 49 per cent of the bauxite (the principal source of aluminum) and two-thirds of the magnesium.

Despite these gains, the industrial war power of the United Nations still can outweigh that of the Axis by a considerable margin. It already has begun to surpass it. The problem is to convert quickly our potential mineral resources into implements of war. In this conversion, a heavy burden of responsibility has been placed on the mining industry of the United States as the largest producer of many metals, minerals and fuels. In fact, the United States mining industry began to go on a war basis a year before Pearl Harbor. The curves of demand for domestic copper, lead, zinc and other metals began to rise sharply in 1940, and were paralleled by a rising coal production.

How well the job has been done cannot be revealed in accurate figures in many cases because of censorship. In metals, however, some idea of production gains can be indicated in comparative terms. United States copper production, for example, is breaking all previous records. Aluminum capacity will be more than seven times its annual peacetime average. Magnesium plants now building will have a capacity 100 times the largest yearly before-the-war figure. Molybdenum, of which the United States has the largest single mine in the world, is being made available in record quantity. Zinc, lead and mercury are surpassing expectations in meeting wartime demands, and tungsten, chromium, manganese, antimony and iron and steel are being turned out in record-breaking quantities.

Bituminous coal production in 1942 was 580,000,000 tons, the greatest in history, valued at more than \$1,300,000,000 at the mine. Some 430,000 or more men were employed in 1942 and received at least \$750,000,000 in wages. Bituminous production in 1939 was 394,855,000 tons, while the output for 1943 is forecast at approximately 600,000,000 tons—another new United States record. The 1942 anthracite output was 59,961,000 tons, valued at over \$270,000,000 at the mine. The industry employed some 85,000 men and paid out at least \$180,000,000 in wages. The 1939 production of anthracite was 51,487,000 tons, and the forecast for 1943 is 65,000,000 tons or more.

Marshalling the Western Hemisphere's mineral resources, the United Nations have been the beneficiaries of the diversified resources of two continents—in particular of Canada's nickel and coal, Mexico's lead and antimony. Chile's copper, Bolivia's tin, Peru's vanadium, Brazil's iron, and Venezuela's petroleum. With other United Nations contributing their share of metals and fuel, the grand total is an impressive array of potential munitions and material to lend assurance

(Continued on page 111)

A WAR TIME SUGGESTION

By WILLARD S. WINSLOW, JR.

145 Olney Ave., N. Providence, R. I.

Today, more than ever before in our long history, we must strive and sacrifice for victory. Our minds are torn by the keen desire to be patriotic and cooperative and at the same time we crave (for) pleasure. To the mineralogist this may be defined as the saving of money usually spent upon minerals and trips undertaken to gather them; to purchasing war bonds instead with the money saved. As we cannot use our automobiles for pleasure, we are obedient and do not use it for the collecting of minerals even though we derive much pleasure from so doing. Not being able to use our autos need not dampen our collecting spirit as we can often use bicycles or local busses.

In my case I am a young man in the early twenties. I have been collecting minerals for over five years and have belonged to the Rocks and Minerals Association for almost three years. Since there are very few active collectors in my state, I have made trips usually alone.

I am specializing in Rhode Island

minerals even though the state is not superfluous in containing them; however careful searching and patience has rewarded me with many good specimens.

At the present time I am searching through old books and records in the far corners of libraries and governmental buildings to obtain data on R. I. minerals when collecting here was in its glory. I am uncovering much data on localities that were "lost" to present day collectors or localities we today do not know had ever existed.

Perhaps other collectors could do the same for their areas now that collecting is restricted and thus contribute much to mineralogical knowledge. After the war is over and victory is ours, these newly discovered localities may be visited and many interesting specimens collected.

I would like to hear from collectors who have data on R. I. mineral localities and would be glad to answer questions on the minerals of this state.

NESTS OF ICELAND SPAR "EGGS" IN MONTANA

A wartime mining development in Montana may prove a bonanza for mineral collectors when we once again get all the gasoline and tires our hearts desire. The locality is about 25 miles north of Livingston, on Brackett Creek, Park Co., Montana. Here about 500 lbs. of Iceland Spar (high-grade optical calcite), is being mined daily by Calcite Operators, Inc., A. H. Hansen, engineer-in-charge.

This Calcite cleaves into perfect six-sided crystals, each side forming a perfect parallelogram. The crystals are so fragile that the lightest blow will cause a fracture, so the greatest care has to be taken. No blasting or machinery can be

used, and the deposit is reached by a shaft 40 ft. deep.

The Iceland Spar deposits are like "eggs" in nests of decomposed material close to the Madison limestone which outcrops frequently in the area. The "eggs" average $2\frac{1}{2}$ to 4 inches in diameter, although specimens up to 300 lbs. weight have been reported in some of the deposits in this district.

All shipments are being sent to the Polaroid Corporation for use in instruments being made for the U. S. Government. As the operation is strictly a wartime proposition, there may be a chance for amateurs to collect or purchase specimens after the Axis trio are defeated.

PAN AMERICAN INSTITUTE OF MINING ENGINEERING AND GEOLOGY

The First Pan American Congress of Mining Engineering and Geology, organized and directed by the Institute of Mining Engineering of Chile and officially authorized by the Government of Chile and the South American Union of Engineering Associations, was held in Santiago, Chile, January 15 to 23, 1942. One of the most important resolutions adopted by the Congress was that calling for the organization of a permanent Pan American Institute of Mining Engineering and Geology. Responsibility for creating the new Institute was delegated to the Executive Committee of the First Pan American Congress of Mining Engineering and Geology. The committee has

recently issued (in Spanish) a draft of Provisional Statutes setting forth the proposed objectives and constitution of the new Instituto Pan-americano de Ingenieria de Minas y Geologia—abbreviated as "IPIMIGEO."

For the information of the mining industry and the American public, the U. S. Bureau of Mines, Washington, D. C., has printed an English translation of the Provisional Statutes as well as the original resolutions officially adopted at the meeting of the Congress in January, 1942. This appears in the Feb. 9, 1943, issue of *Mineral Trade Notes*, issued by the Bureau of Mines.

Wanted!

Quartz Crystal from Mississippi!

Donal Hurley, 16 Lewis St., Little Falls, N. Y., is specializing in quartz crystals and has specimens from every state but Mississippi. Can any reader help him to obtain this missing specimen?

Though quartz is the commonest of all minerals it is, nevertheless, quite an achievement to get crystals from every state in the Union. We do hope Mr. Hurley is successful in obtaining the missing crystal and will write an article on his collection for ROCKS AND MINERALS.

A New Occurrence for Meymacite

Do any of the readers of ROCKS AND MINERALS own samples of Meymacite? In connection with the mining of scheelite, a deposit of this rare mineral has been found on the Snowshoe plateau, 30 miles from Barkerville, British Columbia, Canada.

Meymacite, more commonly known as tungstite, is a bright green tungsten oxide and is an alteration product of scheelite. It is found at several scheelite localities in Canada. At the Kootenay Belle Mine, Sheep Creek, near Salmo, B. C., it occurs massive and as minute crystals associated with gold and wolframite; at Marlow, Frontenac Co., Quebec, it occurs with scheelite in quartz veins.

COLLECTORS' KINKS

Cleaning Quartz Crystals

Badly stained quartz crystals may be cleaned or at least greatly improved in appearance by putting them into a strong cold oxalic acid solution, bringing to boil and let boil until clean. Then rinse the crystals thoroughly in very hot water to remove all traces of the acid.

Use a can or an old pot for the boiling as the acid is apt to ruin a good kitchen article.

EDWIN SKIDMORE.

Editor's Note: Compare this with the method recommended on page 99 of the March, 1941, issue of ROCKS AND MINERALS.

MINERAL PAPERS

By ROY A. REDFIELD

"Mineral Supply House," Spokane, Wash.

2. Buying and Exchanging.

That mineral which is plentiful in your own neighborhood—you know a good deal about that, don't you? Nature has stocked an out-door laboratory for you with that item, and being observant, you have learned more about it than can be read in any books. You have been fascinated to find that there is a border-land for exploration, and in entering upon that ground you have enjoyed the true scientific spirit.

You will find that your appetite grows by what it feeds on. The mineral hobby is like certain habit-forming drugs, it enslaves you. So it will come about that while the field trips continue you will desire more specimens than you can find. There is an obvious possibility—the mind jumps at it; why not swap? Good idea. Go ahead and work off your surplus. Other people have surpluses too, and a trade will benefit all around.

However, in your earlier trading you may learn more about human nature than you do about rocks. Be prepared for some disappointments. Why is it that the other fellow is so prone to overestimate his material? The pumpkin-head!—he may even be crude enough to be thinking the same things about you. Well, the real fact is that anyone is likely to be tricked by his own enthusiasm over the specimens he dug up himself. Some judicious buying, some acquaintance so gained with the mineral market, supplies a measuring-stick. We learn to temper our own estimates and to discount the bumptious ideas of other amateurs. It is a good thing to swap a few letters before swapping material. So far as good intentions go, you may take these for granted in your correspondent; mineral collectors as a class are honest and well-meaning. This is a fact to be celebrated in a later paper. But in your trade

there still remains the conditioning factor of sound judgment, so that the usefulness of describing material and getting a bit acquainted is plain.

You prospect around in your own territory, you trade *and* you buy. Without some buying your collection would be very ragged indeed. Some of the best fish are always caught with a silver hook. When the hobbyist has reached the point where he takes a fine pride in his own collection, he covets all the standard items that give balance and he wants some of the rare ones too. Not field trips alone nor trading nor both together can make a representative showing. And so we come within the orbit of the mineral dealer.

If you happen to meet one of these persons, you will probably find him a meek, harmless sort of fellow who looks as though he might be hen-pecked at home. You may indulge a certain amount of benevolence toward him, the chances are that once he was just an eccentric rock-collector like yourself. If you ask him how he came to lead the life, he may sigh and tell you that at one time he had ambitions for making a lot of money, but circumstances were against him and so he slipped into the position of being a very humble servant of science. Do not be distrustful of his humility, he is no Uriah Heep, he is really a rather decent sort of fellow at heart, and he may have some things that would brighten up your shelves wonderfully.

Though made of the same clay as yourself, the dealer goes beyond you in this, that he ties up a lot of money in choice minerals and spends a lot of time in finding places to buy some more. Sources: that is the big problem in the mineral business. The ordinary merchant

can go to factory or jobber for his supplies; not so the mineral dealer. He has to get his material from queer places and oddly assorted people. Sourdough prospectors, Indians, young engineers just back from Alaska or Peru, mine superintendents, railroad geologists, country people who have found something choice on the farm—these are some of the persons who may help the dealer to connect with his wares. Finding the right people is the dealer's eternal puzzle. The ordinary motions of merchandising performed afterward in getting specimens into the hands of buyers are as child's play, compared with the constant energy spent in developing sources. You can take your volume of Dana and find long lists of places where various minerals may be had, but such check-lists are not even a start in the difficult business of locating persons who can be trusted to pick out choice material. Well do you know that rutile is found at Magnet Cove, Ark., and thunder-eggs at Antelope, Oregon; but try to get some from either place, on your own, and see what luck you have. The dealer who has suffered all these locality headaches performs a service for you.

Would you care for a few suggestions on buying?

Don't buy too much at a time. The new items are worthless unless studied somewhat, and if you overload your rock-digesting physiology you will have a sour stomach for the whole business.

Standard items, representative of the main classifications, should be acquired before the very rare or queer ones. Stick to this rule and you will be a better mineralogist for it.

Don't give your business to anybody

who is not willing to accept return of unwanted material and make a refund. Since you have to order without seeing, that should be an understood term of every order.

Know your dealer. Get acquainted with him and his methods, so far as the mail will serve you. Judge him by his catalog and by his advertising. Then, if he deserves your confidence after a trial, stay with him and don't jump around too much. Any dealer will do just a little more for the steady and valued customer.

Have a program of buying; as by laying out a budgeted amount at intervals, or by tapping a regular source like the interest on that bond you inherited from Aunt Mary. You needn't stop buying war bonds. Just a little trickle, diverted consistently in the direction of your cabinet, will do wonders over a space of time and you'll never miss the money.

Buying is fun, when you are getting something in the luxury class, something that isn't a necessity but is bought to gratify a taste. It almost seems like opening a Christmas package, when you get a shipment of choice minerals from a reliable dealer. Other members of the family stand around and watch, ready to appreciate the beauty of the new treasures. It is really quite an occasion, a pleasure, and an innocent one. Heaven knows you might spend your money in a thousand ways less creditable, you might play the ponies or you might get drunk. When you spend a little in furtherance of a hobby interest that relaxes your mind and helps to get you out-of-doors you are making an investment in health, and every mineral dealer in the country will say you are doing the right thing.

MINING—NUMBER ONE WAR INDUSTRY

(Continued from page 107)

of certain victory over the Axis. Sheer weight of metal, properly used, will win the war, and our mineral industry will

have played an indispensable and essential part in the inevitable outcome.

JAMES H. MCGRAW, JR.,

President, McGraw-Hill Pub. Co., Inc.

SOUTHERN CALIFORNIA LOCALITIES

By JACK SCHWARTZ

656 South Hendricks Ave., Los Angeles, Calif.

6. Borate.

Any collector who visits the old ghost mining town of Calico, near Barstow in San Bernardino County, should not fail to take the scenic ride through Mule Canyon. At the end of this bumpy ride on a dirt road is the locality of Borate.

In 1883 a large deposit of Colemanite was discovered at Borate. Until the Death Valley deposits were worked, Borate was a very large producer of borax.

Many and large are the dumps which greet the eyes of the collectors when reaching the end of Mule Canyon. In fact, the end of the canyon road runs right on top of a huge dump.

Naturally Colemanite is very common. The writer collected many specimens of geodes containing beautiful crystals of Colemanite and Celestite. Some of these fluoresce a beautiful green under a black light.

Gypsum is found in large cleavages. Satin Spar and some Selenite are also taken. Huge pieces of Sericite, a variety of Muscovite, were taken by the author and Sydney Dennis.

Small quantities of Ulexite were also observed.

Sandstone concretions, most of them round and nearly flat, can be taken by the hundreds. The writer collected a great many of these concretions that look like various types of hats.

Pabst (1938) reports that Asbolite (a variety of Psilomelane containing Cobalt), Anhydrite, Krausite, Halotrichite, Copiapite, Coquimbite, Alunite, Voltaite, Metavoltine, Romerite, Fibroferite and Jarosite occur with the Gypsum.

According to McArthur (1941), Priceite, Chert, and Jasper are also taken here.

However, Foster (1940) claims that the Priceite taken here is really Howlite.

Literature.

Foster, R. K.

1940. *Howlite from Borate*. Pacific Mineralogist 7 (1): 27.

McArthur, A. J.

1941. *Three thousand miles to collect minerals*. Pacific Mineralogist 9 (2): 12.

Pabst, A.

1938. *Minerals of California*. Calif. Div. Mines Bul. 113.

A LETTER FROM ALBANESE FROM DOWN-UNDER

Editor R & M:

Am on an island in the S. W. Pacific. Coming down we passed the equator, a small island with a smoking volcano, and the international date line. Sorry I cannot mention localities. There is a big (censored) on this island but I am not free to visit it and send you a few specimens of the (censored). However, I am on the lookout for anything of geological interest. I have an assignment from Dr. Pough of the American Museum of Natural History to report on geological

formations of any little known islands I may visit. Best regards to members of the R. & M. A.

John S. Albanese, U. S. Navy
Somewhere in the S. W. Pacific.

Jan. 30, 1943.

Editor's Note: Mr. Albanese is a well known mineral collector and dealer (specializing in Franklin, N. J., minerals), from Newark, N. J. Just about a year ago he guided us to a number of interesting localities around Franklin, including an old abandoned copper mine at Edison. We are sure that his many friends will enjoy his letter.

Questions and Answers

Ques. "I have heard that Death Valley in California is the lowest spot in the United States. Is this true?" J. C., Newark, N. J.

Ans. Yes, *Death Valley in California is the lowest spot in the United States; it is 276 feet below sea level. Incidentally, the highest point in the United States is also in California—the summit of Mt. Whitney which is 14,496 feet above sea level.*

Ques. "I have heard that agates come only from Brazil. Are any ever found in the United States?" A. B. T., Jersey City, N. J.

Ans. *Almost every state in the Union produces agates and especially are the western states as Oregon, Montana, California, etc., noted for beautiful specimens. The trap rock quarries around Paterson, in your own state, furnish many nice agates. Years ago when the Erie R. R. excavated its tunnels through Bergen Hill in your very city some nice agates were found. Consult Manchester's "Minerals of New York City and Its Environs" (in your public library) for a list of minerals that have been found in your city.*

Ques. "I have a nice green specimen with part of a label affixed to it which reads 'Williamsite—Texas'. I can't find anything about the mineral in my Loomis. Will you please tell me what it is and, if possible, from what locality in Texas?" M. T. R., New Orleans, La.

Ans. *Williamsite is an apple-green, translucent, massive lamellar variety of serpentine. $H=4.5$. $G=2.59-2.64$. It takes a beautiful polish and has often been used in jewelry and as an ornamental stone; it has at times been mistaken for jade or nephrite. Williamsite owes its green color to slight traces of nickel.*

Your specimen does not come from the state of Texas but from the abandoned chromite mines of Texas, Lancaster Co., Penn., where it occurs as thin seams in chromite. The mineral owes its name to L. W. Williams who discovered it in these mines about 100 years ago.

Ques. "Has fool's gold any commercial value?" A. G. Toledo, Ohio.

Ans. *Fool's gold is iron pyrite (or pyrite) and if it occurs in huge amounts, so that it can be mined in ton lots, it would then be a valuable ore for use in the manufacture of sulphuric acid. In many parts of the world, pyrite is gold-bearing and is then mined as a gold ore—at times gold-bearing pyrite is a rich gold ore.*

Ques. "Is Corundum and Carborundum one and the same?" C. D., Richmond, Va.

Ans. *No, they are not. Corundum is a mineral occurring in nature as aluminum oxide of which ruby and sapphire are varieties. Carborundum is an artificial product, a crystalline compound consisting of silicon and carbon, and manufactured on a large scale by the Carborundum Company at Niagara Falls, N. Y. Emery (an impure corundum) and carborundum have two things in common; they are both extremely hard and both are used as abrasives.*

Ques. "I am a beginner in mineralogy. What minerals and books would you suggest that I purchase? I am willing to spend \$25". E. K. R., Boston, Mass.

Ans. *It is a pleasure to answer your question, E. K. R. Order about 85 specimens (all different) of the common minerals and 15 of common rocks. These 100 specimens, in small sizes of about 1x1 inch, would cost about \$15. You should have four books—Hawkins' "The Books of Minerals" (\$1.50); English "Getting Acquainted With Minerals" (\$2.50); Dana's "Manual of Mineralogy" (\$4.00); and Zodac's "How to Collect Minerals" (\$1.00). And last but not least, one year subscription to ROCKS and MINERALS (\$2.00). This totals \$26. But be sure to send your order to one of OUR advertisers—he will take care of it all for you and give your good service.*

Watch for This Picture!

Universal Motion Pictures Company, Inc., recently took a series of reels of the Kenneth and Edith McLeod collections, assorted hobbies and activities, which is to be released in March. The picture is included in Universal Motion Picture Company's "Stranger Than Fiction" series and at the time of taking was titled, "The Hobbies That Consumed a Home". Mr. and Mrs. Kenneth McLeod live in

Klamath Falls, Oregon.

If any of the readers of ROCKS and MINERALS want to see how hobbiests hobby way out west, they can drop a card to Universal Motion Picture Company, Rockefeller Center, New York City, N. Y., and ask to be notified when and where the reel will be shown in their city.

Mrs. McLeod is a member of the Rocks and Minerals Association.

Clubs Affiliated With the Rocks and Minerals Association

ARIZONA

Mineralogical Society of Arizona

Geo. G. McKhann, Sec., 909 E. Willetta Street, Phoenix.

Meets at the Arizona Museum in Phoenix on the 1st and 3rd Thursday of each month.

CALIFORNIA

East Bay Mineral Society

Miss Nathalie Forsythe, Sec., 1719 Allston Way, Berkeley.

Meets on the 1st and 3rd Thursdays of each month (except July and August), at 8:00 p.m., in the Lincoln School Auditorium, 11th and Jackson Sts., Oakland.

Northern California Mineral Society, Inc.

Mrs. Bernice V. Smith, Sec., 1091 Bush St., San Francisco.

Meets on the 3rd Wednesday of the month at the Public Library, San Francisco, at 8:00 p.m.

Pacific Mineral Society

Margaret Cotton, Sec., 2129—9th Ave., Los Angeles.

Meets on the 2nd Friday of each month at 6:30 p.m., at the Hershey Arms Hotel, 2600 Wilshire Blvd., Los Angeles.

Southwest Mineralogists

Dorothy C. Craig, Corres. Sec., 4139 S. Van Ness Ave., Los Angeles.

Meets every Friday at 8:00 p.m., Harvard Playground, 6120 Denker Ave., Los Angeles.

COLORADO

Canon City Geology Club

F. C. Kessler, Sec., 1020 Macon Ave., Canon City.

Meets on the 1st and 2nd Saturdays of each month at 9:00 a.m. in the High School Building, Canon City.

CONNECTICUT

Bridgeport Mineral Club

Miss Georgianna Seward, Sec., 2859 Main St., Bridgeport.

Meets in the Bridgeport Public Library on the 3rd Monday of the month.

Mineralogical Club of Hartford

Frank P. Rockwell, Secretary, 88 Fern St., Hartford.

Meets the 2nd Wednesday of each month, at 8:00 p.m., at 249 High St., Hartford.

New Haven Mineral Club

Mrs. Lillian M. Ottersen, Sec., 16 Grove Place, West Haven.

Meets on the 2nd Monday of the month at the Y. W. C. A. on Howe St., New Haven.

IDAHO—OREGON

Snake River Gem Club

Frank S. Zimmerman, Sec., Payette, Idaho.

Meets alternately in Payette, Idaho, and Ontario, Oregon, (two small cities on the Snake River) on the 3rd Tuesday of every month.

ILLINOIS

Junior Mineral League

William Dacus, Sec., Morgan Park Junior College, 2153 W. 111th St., Chicago.

MAINE

Maine Mineralogical and Geological Society

Miss Jessie L. Beach, Sec., 6 Allen Avenue, Portland.

Meets last Friday of the month at 8 p.m., at the Northeastern Business College, 97 Danforth Street, Portland.

MASSACHUSETTS

Boston Mineral Club

Miss M. Gertrude Peet, Sec., 8 Willard St., Cambridge.

Meets on the 1st Tuesday of the month at 8:00 p.m., at the New England Museum of Natural History, 234 Berkeley St., Boston.

Connecticut Valley Mineral Club

Mary E. Flahive, Secretary, 96 South St., Florence

Meets on the 1st Tuesday of each month at 8 p. m. at various institutions in the Connecticut Valley.

MISSOURI

National Geologist Club

Mrs. D. P. Stockwell, Pres., Mt. Olympus, Kimmiswick.

NEVADA

Reno Rocks and Minerals Study Club

Mrs. Rader L. Thompson, Sec., Box 349, R2, Reno.

Meets on the 1st Wednesday of each month, at 7:30 p.m., at the Mackay School of Mines, Reno.

NEW JERSEY

Newark Mineralogical Society

Louis Reamer, Secretary, 336 Elizabeth St., Orange.

Meets on the 1st Sunday of the month at 3 p.m. at Junior Hall, corner Orange and North 6th Streets, Newark.

New Jersey Mineralogical Society

G. R. Stilwell, Sec., 1023 W. 5th St., Plainfield.

Meets on the 1st Tuesday of the month at 8 p.m. at the Plainfield Public Library.

NEW MEXICO

New Mexico Mineral Society

R. M. Burnet, Sec.-Treas., Carlsbad.

Society of Archaeology, History and Art Carlsbad.

NEW YORK**Chislers, The**

Miss Evelyn Waite, Sponsor, 242 Scarsdale Road, Crestwood, Tuckahoe.

Queens Mineral Society

Mrs. Edward J. Marcin, Sec., 46-30—190th Street, Flushing.

Meets on the 1st Thursday of the month at 8 p.m. at 8501 - 118th St., Richmond Hill.

PENNSYLVANIA**Thomas Rock and Mineral Club**

Mrs. W. Hersey Thomas, Pres., 145 East Gorgas Lane, Mt. Airy, Philadelphia.

Meets on the 3rd Friday of each month, at 8:00 p.m., at the home of its president. Mrs. Thomas.

VERMONT**Mineralogical Society of Springfield**

Victor T. Johnson, Sec., 11 Elm Terrace, Springfield.

Meets on the 3rd Wednesday of each month at 8:00 p.m. at the homes of members.

WISCONSIN**Wisconsin Geological Society**

Milwaukee Public Museum, Milwaukee, Wisc.

Meets on the 1st Monday of each month at 8:00 p.m., at the Public Museum in Milwaukee.

Collectors' Tales

One Way To Get Even!

The story is told of a rich gold miner who, dressed in rough clothes, tried to enter a fashionable hotel in Denver, Colo., many years ago, and was refused admission. The miner had been on an inspection tour of his mines and either carelessly or through force of habit, neglected to change into better clothes before

reaching the hotel. The rude manner in which the clerk turned him out so riled the miner that he decided to get even. That very day, before many hours had passed, he looked up the owner, bought the hotel, fired the clerk, and then took possession of the best suite of rooms in the building.

Bibliographical Notes

Mineral Club History: By Dr. H. C. Dake

It may be a matter of much interest to our readers to announce that there are over one hundred earth science organizations in the United States. Many of these groups are known as mineral clubs or societies; others as gem clubs or societies, lapidary societies, and even as geological clubs or societies. These organizations are scattered all over the country, in small communities as well as in large cities.

Dr. H. C. Dake, the popular editor of *The Mineralogist*, and one of the best known mineral collectors in the country, has just issued a most interesting report on the history of these various organizations. It is a most attractive publication of 64 pages and contains 36 fine photos of some of the eminent collectors of America among whom are many who are members of the Rocks and Minerals Association as George L. English, Rochester, N. Y.; John Grieger, of the firm of Warner & Grieger, Pasadena, Calif. (now in the army);

Edwin V. Van Amringe, Pasadena, Calif.; Wendell O. Stewart, Monrovia, Calif.; John F. Akers, Compton, Calif.; Paul VanderEike, Bakersfield, Calif.; W. Scott Lewis, Hollywood, Calif.; William B. Pitts, San Francisco, Calif.; Capt. Harry E. Mitchell, Long Beach, Calif.; Charles O. Fernquist, Spokane, Wash.; H. E. Murdock, Bozeman, Mont.; Richard Pearl, Denver, Colo. (now in the army); Ben Hur Wilson, Joliet, Ill.; A. N. Goddard, Detroit, Mich.; Mr. and Mrs. John A. Grenzig, Brooklyn, N. Y.; Ernest W. Chapman, So. Pasadena, Calif.; Frank L. Fleener, Joliet, Ill.; and George J. Huss, Chicago, Ill.

Mineral Club History is a most valuable and timely publication and one which we heartily recommend to every collector in the country. It sells for only \$1 a copy (the photos alone are worth this) and it is obtainable from the author, Dr. H. C. Dake, Editor *The Mineralogist*, 702 Couch Bldg., Portland, Oregon, or from John A. Grenzig, 299 Adams St., Brooklyn, N. Y.

CLUB AND SOCIETY NOTES

New York Mineralogical Club

American Museum of Natural History, New York, N. Y., Wednesday, Feb. 17, 1943.

Convened: 8:10 P.M. Attendance: 55.

The minutes of the previous meeting were read and approved.

Dr. Pough announced for the Education Committee that the Saturday afternoon classes in mineral identification are continuing as scheduled and that all members are welcome.

Mr. A. B. Cummins and Mr. T. A. Wright were elected to membership.

The following committee was elected to make nominations for officers and to report at the March meeting:

Mr. E. L. Sampfer, Chairman
Mr. G. E. Ashby
Dr. E. R. P. Janvrin
Dr. O. Trautz
Miss Gwynne Richards

Mr. Trainer announced that the informal dinners preceding meetings would henceforth be held at the Hotel Alden, Central Park West at 82nd St., instead of at the Planetarium Restaurant as formerly.

Mr. Edwin Skidmore of the New Jersey Club announced that he would exhibit an improved ultra violet lamp at our March meeting and invited the members to bring fluorescent specimens.

Mr. Trainer then introduced the speaker of the evening, Dr. Harry Berman of Harvard University, whose subject was "The New Classification of Minerals".

In revising Dana's "System of Mineralogy" Dr. Berman and his associates have found it necessary to make drastic changes in the classification in order to accommodate new data and concepts which have appeared since the publication of the last edition.

In discussing the general principles of any classification, Dr. Berman pointed out that it might be arbitrary (as an alphabetical list), on a very broad basis (as metals and non-metals), according to successive changes in a single property (as specific gravity), or according to a non-fundamental property (as content of metallic elements). Any of these systems is useful for limited purposes such as indexing or identification, but all are deficient in many important respects. A valid classification should meet the following tests: Successive changes in any property chosen as a basis of classification should bring successive changes in all the other properties, otherwise the property was not a fundamental one. Further, it should be possible to predict the

properties of any mineral from its position in the classification, and likewise, a complete knowledge of the classification should provide an understanding of the pertinent facts of the science. In addition, the system must be flexible enough to provide for the accommodation of new species and new data when discovered. Thus a new classification must be based on a natural and significant major variation and subsequent divisions within those major changes. Modern crystal chemistry provides such a basis in which the most fundamental property is the internal structure as revealed by X-ray analysis. Subdivisions are based on chemical variations within structures, the crystallographic details of variation and the further effects of isostructural and isomorphous variations.

The principal units of the new classification called classes are chemical and were introduced mainly for mineralogical reasons. They include elements, sulfides, sulfo-salts, simple oxides, uranium oxides, hydroxides, etc. These classes are then divided into types based on the ratio of total positive elements to negative elements or groups, with the higher ratios first. Thus, in the class sulfides the type AX (1:1 ratio) is represented by galena (PbS). In general each class has a duplication of types so that we also find type AX in the class oxides (as periclase, MgO), and again in the halides (as halite, NaCl).

Each type may also have a number of groups. Thus type AX in the class sulfides includes a galena group and a sphalerite group based on important differences in crystal structure. Certain of the groups are further divided into series such as the tremolite, anthophyllite, hornblende, glaucophane and arfvedsonite series in the amphibole group. Each series in this case includes all chemical and other variants more closely related to the pure compound (or species) than to the representative compound of any of the other series. In such cases the term "species" is applied to a range of substances, for instance "albite" containing from 90 to 100% soda feldspar. In other cases the species name is more limited in application as quartz.

An attempt has also been made to reduce the number of mineral names by dropping separate names for varieties except where such names are of very long standing (as ruby, sapphire, emerald). Wherever possible a descriptive varietal name is preferred instead of a separate one. Thus "ferroan (iron containing) spinel" instead of "ceylonite".

Dr. Berman stated that arrangements have been completed for publication of the first volume in the near future.

A vote of thanks was extended to the speaker at the conclusion of his interesting talk.

Mr. Marshall read a letter from an English school child thanking the Bridgeport Mineral Club for some phosphorescent mineral specimens. The children fasten these to their clothing before entering air raid shelters and are immensely cheered up by the colored glow given off by the minerals.

The meeting was adjourned at 10:00 P.M.

M. Allen Northup, Sec'y.

Snake River Gem Club

The following officers have been elected for 1943:

President—Mrs. Earle J. Coates

Vice-President—Mrs. E. E. Logan

Secretary-Treasurer—Frank S. Zimmerman

The club meetings are held on the third Tuesday of each month rotating between Ontario, Oregon, Payette and Weiser, Idaho.

New Jersey Mineralogical Society

A regular meeting of the Society was held on Tues., March 2, 1943, at the Plainfield Library, Plainfield, N. J. The guest speakers were Dr. G. C. Ridland, of the Johns Manville Co., whose subject was "Prospecting for radium ore in the far north", and Dr. Marcel Pochon of the Canadian Radium & Uranium Corp., whose subject was "Radium Ores from the Northwest Territory (Great Bear Lake), Canada". Both speakers showed moving pictures—Dr. Ridland's were taken in summer and Dr. Pochon's in winter.

Dr. Pochon is considered to be the greatest authority in America on radium ores and their uses. He was a co-worker with Mme. Curie at the time of the discovery of radium.

Commencing Sunday, March 20, 1943, and continuing for 8 weeks, two special study courses conducted by Dr. A. C. Hawkins, will be given at the library. The first course is Elementary Mineralogy (2:00 p.m. to 3:00 p.m.) and the second is Crystallography (3:30 p.m. to 4:30 p.m.). There is an expense fee of \$2.00 for each course per student. Dr. Hawkins is the eminent mineralogist so well known to collectors as the author of many popular articles and books of which one is "The Book of Minerals".

Northern Ohio Guild

A regular meeting of the Guild was held on Thurs., March 4, 1943, at Western Reserve University, Cleveland, Ohio. The program consisted of a lecture on Aquamarine and Bloodstone—March birthstones—by Dr. Donner of the University; a talk, "Curious lore and legends of the aquamarine and bloodstone", by Ray Hoover; evaluation of a selec-

tion of aquamarines by individual members, conducted by Miss Kathryn Appleby; and a study session for students under the supervision of Leslie Bonwell.

Texas Mineral Club

Dallas, Texas, has organized a mineral club. Name: The Texas Mineral Club, which will meet the first Friday in each month. Nominating committee selected the following officers: Thos. D. Copeland, President; Mrs. Viola Block, Vice-President; Mrs. A. L. Jarvis, Secretary, and A. L. Jarvis, Treasurer.

Purpose of this Club:

- (1) To promote the study of Mineralogy and Geology to the extent it leads to a better understanding of Mineralogy.
- (2) Encouraging the collecting of Minerals.

We were very fortunate in having Professor Lynch, from Arlington, Texas, at our meeting to help us get started. Professor Lynch has offered to show sound pictures at our next meeting on April 2nd.

We meet in the Dallas Power & Light Auditorium, Oak Cliff, at 7:30 P.M.

Any one visiting in Dallas, Texas—we were very happy to have you plan to attend one of our meetings.

Mrs. A. L. Jarvis, Sec.

The Los Angeles Lapidary Society

The Los Angeles Lapidary Society, Los Angeles, Calif., is planning to hold its Annual Exhibition this year about the middle of May and details as to exact time and place will be forthcoming shortly. The two previous exhibitions made history and we are advised by DeWitte Hagar, President of the Society, that this show is expected to be bigger and better than ever.

The Society announces something that might prove of interest to other societies. DeWitte Hagar, President, at the Christmas meeting appointed Dr. O. P. Avery to be official Chaplain of the Society. They are now proudly displaying a service flag with seven stars.

Latest news from the Los Angeles Lapidary Society reports that they are now in the process of incorporating.

Mineralogical Society of Arizona

A regular meeting of the Society was held on Thurs., March 4th, at its headquarters, Arizona Museum, Phoenix, Ariz. Dr. George C. McKhann, the Secretary of the Society, was the speaker and his subject was "Pseudomorphs". Type specimens of pseudomorphs were exhibited.

At the meeting held on Thurs., March 18th, the second chapter in mineral identification was featured.

R. & M. A. HONOR ROLL

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The following members of the Rocks and Minerals Association are in the armed service of our country. Of the 51 members listed, one is a girl, Miss Eleanor Wales, of Auburn-dale, Mass. If any errors or omissions occur, please call them to our attention. We would also appreciate if members would notify us of their change in rank, etc., so that they may be properly listed.

Though some members are on foreign soil, the Association has suffered no casualties as far as is known.

Albanese, John S. (Navy), Newark, N. J.
 Bagrowski, Benedict P. (Pvt., Army), Milwaukee, Wisc.
 Bingham, Wm. (Capt., Army), St. Paul, Minn.
 Birman, Joseph (Pvt., Army), Seekonk, Mass.
 Bondley, Charles J., Jr. (Lt. Col., Army),?
 Briskey, Austin Day, Jr. (Navy), New York, N. Y.
 Brown, J. Prescott (Maj., Army), Albany, N. Y.
 Campbell, Clyde (Pvt., Army), Harrison, Ohio
 Cilen, Anthony (Pvt., Army), Hawthorne, N. J.
 Cilen, Joseph (Pvt., Army), Hawthorne, N. J.
 Connor, J. H. (Navy), Atlanta, Ga.
 Crowley, Richard M. (Army), Philadelphia, Pa.
 Ehrmann, Martin L. (Capt., Army), New York, N. Y.
 Fine, Sidney A. (Corp., Army)?
 Glasser, Frank (Sgt., Army), Gray, Idaho
 Graham, D. P., Jr. (Pvt., Army), Silver Spring, Md.
 Grieger, John M. (Pvt., Army), Pasadena, Calif.

Hatcher, J. S. (Brig Gen., Army), Falls Church, Va.
 Irvin, A. M. (Army), Dexter, Maine
 Jenni, Clarence M. (Maj., Army), Festus, Mo.
 Kerridge, P. M. (Lt., Navy), Washington, D. C.
 Kessler, Dr. Frank (Army), Peekskill, N. Y.
 Knox, Arthur S. (Army), W. Somerville, Mass.
 Kobelt, Theodore W. (Army), Wallkill, N. Y.
 Komiakoff, Leo (Lt., Army), Poughkeepsie, N. Y.
 Livingston, John L. (Capt., Army), Elizabethtown, Ill.
 McFarling, W. L. (Pvt., Army), Lincoln, Nebr.
 McKinley, Wm. C. (Army), Peoria, Ill.
 Minor, W. C. (Army), Fruita, Colo.
 Mixon, Carol (Pvt., Army), Lawrence, Mass.
 Molnar, George (Corp., Army), Perth Amboy, N. J.
 Newell, Jno. G. (Pvt., Army), Wilson, N. C.
 Pearl, Richard M. (Corp., Army), Denver, Colo.
 Printz, W. Harold (Pvt., Army), Newport, Ore.
 Pugsley, Ken (Pvt., Army), Pawling, N. Y.
 Randolph, Jack H. (Sgt., Army),?
 Reynolds, Dr. A. H. (Army), New York, N. Y.
 Sawyer, John A. (Maj., Army), Manhattan, Kans.
 Shabub, B. M. (Maj., Army), Northampton, Mass.
 Shinkle, J. C. (Maj., Army), Aberdeen, Md.
 Smith, T. L. H. (Pvt., Army), Danbury, Conn.
 Sober, Harry (Ens., Navy), Washington, D. C.
 Stinger, Ed. (Army),?
 Straley, Arthur (Navy),?
 Tasman, H. G. (Navy), Nyack, N. Y.
 Thompson, Norman (Corp., Army), Chico, Calif.
 Wales, Miss Eleanor (Lt., WAACS), Auburndale, Mass.
 Watters, Lu (Navy), San Francisco, Calif.
 Wildzunas, John (Corp., Army), Albany, N. Y.
 Yaeckel, M. P. (Navy), Claremont, Calif.
 Yedlin, Leo Neal (Army), Cedar Grove, Me.

With Our Dealers

C. O. Fernquist, of Spokane, Wash., has just released Price List No. 12—a one page announcement listing 41 Chinese Carved Figures. These are most interesting items of first class workmanship and only one of a kind; they include agates, carnelians, jades, rock crystals, and aragonites. His classified ad on page 119 gives more information.

Hatfield Goudey, of Yerington, Nev., has two ads in this issue—one featuring fine foreign minerals and the other all western specimens. Be sure to read them both—they will intrigue you!

John A. Grenzig, of Brooklyn, N. Y., is featuring three interesting books in his ad this month. Two of these books are on fossils, both beautifully illustrated, and Dr. Dake's new book, "Mineral Club History". Of course

other items also appear in the ad. Better look the ad up to see for yourself!

Schortmann's Minerals, of Easthampton, Mass., are again featuring Selected Specimens in this issue. Europe! Africa! South and North America! are represented. Don't miss this ad! ! !

This month Ward's Natural Science Est., Inc., of Rochester, N. Y., are offering some recent additions to their stock. One specimen is cuprite in epidote—an unusual occurrence. Have you such a specimen in your collection?

Johnson's Minerals, of Asheville, N. C., have suspended business for the duration. Mr. Johnson and his daughter, Miss Joyce, are both helping Uncle Sam to win the war by working in an important defense plant.

